PUBLIC VERSION

226774

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Docket No. 42104

ENTERGY ARKANSAS, INC. AND ENTERGY SERVICES, INC.
v.
UNION PACIFIC RAILROAD COMPANY
AND
MISSOURI & NORTHERN ARKANSAS RAILROAD COMPANY, INC.

OPENING EVIDENCE AND ARGUMENT OF ARKANSAS ELECTRIC COOPERATIVE CORPORATION

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Dated: April 7, 2010

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OPENING ARGUMENT OF ARKANSAS ELECTRIC COOPERATIVE CORPORATION

In accordance with the Board's Decision served June 26, 2009 in this Docket, Arkansas Electric Cooperative Corporation (AECC) joins Entergy Arkansas, Inc. and Entergy Services, Inc. (collectively Entergy) in asking the Board to prescribe, in accordance with 49 U.S.C. 10705, a through route to provide rail transportation of coal from the Powder River Basin (PRB) to the Independence Steam Electric Station (ISES) at Newark, AR, because Union Pacific Railroad (UP) is providing inadequate service and is foreclosing the possibility of a more efficient route for coal transportation from the PRB to ISES.

I. SUMMARY OF ARGUMENT

The interchange commitment contained in UP's agreement with MNA facilitates UP's exercise of market power over shipments of PRB coal to ISES. UP has been providing inadequate service to ISES and has been foreclosing the possibility of a more efficient route from the PRB to ISES. UP lacks an incentive to provide the most efficient service to ISES, and instead uses a circuitous route for this movement that produces unnecessary resource

consumption. UP also lacks an incentive to assure reliable service to ISES, and as a consequence ISES has experienced costly disruptions of UP's coal deliveries.

A BNSF-MNA through route from the PRB to ISES, with an interchange at Lamar, MO, is feasible, and would be more efficient than the route used by UP. The Board should exercise its authority under 49 U.S.C. 10705 to prescribe such a through route.

Furthermore, the Board should include in its order prescribing the through route provisions to prevent UP from using its agreement with MNA to destroy the through route or undermine its effectiveness.

II. INTRODUCTION

AECC is a membership-based generation and transmission cooperative that provides wholesale electric power to electric cooperatives, which in turn serve approximately 460,000 customers located in each of the 75 counties in Arkansas. In order to serve its member distribution cooperatives, AECC has entered into arrangements with other utilities within the state to share generation and transmission facilities. AECC's 35% ownership interest in ISES (of which Entergy is the operator and majority owner) is one of its largest generation assets; ISES typically burns in excess of 6 million tons of PRB coal annually.

AECC and Entergy depend on rail service to transport that large quantity of coal from the PRB to ISES. That service is presently provided by UP from the PRB to Diaz Junction, AR, about 10 miles from ISES, and from there over MNA 1/ to the power plant. The UP route is

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1/ Missouri & Northern Arkansas Railroad Company is referred to as MNA.

circuitous compared to the potential alternative routing via BNSF 2/ from the PRB to an interchange with MNA at Lamar, MO, and thence via MNA to ISES. Furthermore, UP coal deliveries to ISES have been interrupted several times by severe service failures, which have imposed substantial costs on AECC and Entergy. Thus, more efficient and more reliable transportation could be provided for PRB coal to ISES if the option of BNSF-MNA service were available.

However, UP has used contractual provisions in its agreements with MNA to prevent Entergy and AECC from obtaining this more efficient and more reliable transportation. Those contractual provisions would impose severe penalties on MNA if it delivered to ISES substantial volumes received from BNSF, thus effectively foreclosing BNSF-MNA service.

In its Decision served June 29, 2009, this Board ruled that the appropriate remedy for this problem was for Entergy and AECC to seek the establishment of a BNSF-MNA through route, pursuant to 49 U.S.C. 10705. Entergy has filed a complaint for such relief, and AECC has joined in and supports that effort.

III. APPLICABLE LEGAL PRINCIPLES

49 U.S.C. 10705, provides that the Board "may, and shall when it considers it desirable in the public interest, prescribe through routes, joint classifications, joint rates, the division of joint rates, and the conditions under which those routes must be operated, for a rail carrier providing transportation subject to the jurisdiction of the Board."

2/ BNSF Railway Company is referred to as BNSF

The Supreme Court has explained that when evaluating whether a through route should be established pursuant to Section 10705, the Board should "look beyond the mere adequacy of the carrier's physical operations to the broader public interest which embraces service to shippers and the rates they pay . . . to try to strike a fair balance in satisfying the needs of shippers, railroads, and the public." Denver & R. G. W. R. Co. v. Union P. R. Co., 351 U.S. 321, 332 (1956) (upholding an order of the Interstate Commerce Commission which required railroads to establish through routes and joint rates for the carriage of certain perishable commodities) (citing Pennsylvania R. Co. v. United States, 323 U.S. 588, 591 (1945)) (internal quotation marks omitted). The question is whether, on balance, the shipper is entitled to a route that "affords it 'more efficient' (that is, better) or 'more economic' (that is, cheaper) transportation service." Pennsylvania R. Co. v. United States, 54 F. Supp. 381, 392 (D. Md. 1944) *aff'd* 323 U.S. 588 (1945).

To answer this question, the Board must consider "the adequacy of service, its cost to the shipper, and the convenience, efficiency, and cost of the carriers' operations." Pennsylvania R. Co., 323 U.S. at 591 (upholding an order of the Interstate Commerce Commission which required the railroads to establish two through routes based on the Commission's findings that (1) the existing routes required back-hauls that delayed the shipper's products; (2) the addition of the charge for such back-hauls to the through rate cut into the shipper's small margin of profit, affecting the shipper's ability to compete; and (3) there was no evidence that the new routes would be less economical).

In its June 26, 2009 Decision in the current docket, the Board held that Section 10705 provides "a straightforward path" for Entergy and AECC to obtain more efficient and

reliable rail service for transportation of PRB coal to ISES. Entergy Arkansas, Inc. v. UP, STB Docket No. 42104, Decision served June 26, 2009, at 2. As the Board explained:

> [A] shipper's right to adequate service, reasonable rates, or any other statutory right (including access to an alternate through route) cannot be contracted away by an agreement between carriers. [citation omitted.] Thus, if a certain combination of carriers is providing inadequate service or is foreclosing the possibility of a more efficient route, the fact that they have an interchange commitment agreement does not limit the Board's ability to order alternative service over the carriers' lines or to require the carriers to open a new interchange with another carrier.

Id., at3 (emphasis in original). 3/

The Board identified three reasons for relief under Section 10705 in this case. First, "an abuse of market power" by UP; ISES is served solely by UP/MNA today, and Entergy and AECC allege that UP, through the interchange commitment in its agreement with MNA, "has exploited that market power to foreclose competition." Second, the alternative routing "may be feasible". Third, "AECC alleges that the alternative routing is shorter than the route imposed by the UP/MNA agreement." Id., at 7.

A rail carrier has no right to "defeat legitimate competitive efforts of other rail carriers and shippers by foreclosing more efficient service." Thus:

> [I]f Entergy or AECC can demonstrate that, due to this interchange commitment, UP and MNA are providing inadequate service or foreclosing more efficient service over another carrier, [the Board] may direct that a new route be opened and order MNA to establish a common carrier rate for interchange with that other carrier.

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3 See Review of Rail Access and Competition Issues – Renewed Petition of the Western Coal Traffic League, Ex Parte No. 575 et al., Decision served Oct. 30, 2007, at 13, 15 n. 38.

Id., at 7.

The Board observed that the "showing [that] would justify the prescription of a through route" is "necessarily fact specific", and it referred specifically to "the discussions concerning alternative route prescriptions in Central Power & Light Co. v. Southern Pac., et al., 1 S.T.B. 1059, 1068 (1996) (CP&L), *aff'd sub nom.* MidAmerican Energy Co. v. STB, 169 F.3d 1099 (8th Cir. 1999). In determining whether a foreclosed route is "more efficient" under Section 10705, the Board said it will consider the factors in 49 CFR 1144.2 (a) (1), including the revenue associated with the traffic, the relative costs associated with serving the alternate routes, and the anticipated volume of traffic moving over the alternate route.

IV. SUMMARY OF AECC'S EVIDENCE

The evidence submitted by AECC and Entergy shows that UP has abused its market power through the interchange commitment to foreclose a BNSF/MNA route to ISES that would be more efficient and would provide better service than the current UP/MNA route.

A. UP Has Abused Its Market Power

ISES is located on MNA, and MNA connects with BNSF and Kansas City Southern Railway (KCS), as well as with UP. However, the interchange commitment in the UP-MNA agreement effectively prevents MNA from participating in movements of PRB coal to ISES in cooperation with any rail carrier except UP. As explained in the Verified Statement of Michael A. Nelson (Nelson VS), Part 3, because of the interchange commitment imposed on MNA by UP, there is no practical alternative to UP/MNA service to ISES.

This means that UP lacks an incentive to provide the most efficient and reliable service to ISES. For its own reasons, but to the detriment of its customer, UP has chosen to route unit coal trains from the PRB to ISES via a circuitous route through Oklahoma. The circuity of the route translates to additional costs, producing unnecessary resource consumption. See Nelson VS, Part 5.

Furthermore, UP lacks an incentive to make its service to ISES as reliable as possible, because the customer has no alternative. As a result, ISES has experienced a series of substantial rail delivery service problems during the past 15 years. As described in Nelson VS, Part 4, on three different occasions, these problems were so severe that ISES was required to impose burn restrictions. Although ISES maintains prudent target inventory levels and valid transportation contracts to move needed coal, rail service problems have repeatedly forced ISES and its owners (and ultimately its customers) to incur extraordinary costs and endure operational disruptions because of unscheduled curtailments of plant output. When service problems have arisen on UP, the interchange commitment in the UP-MNA agreement has prevented Entergy and AECC from obtaining an alternative routing from the PRB via BNSF and MNA, or when BNSF was also suffering service disruptions, interline movements of substitute fuels originated by other carriers (e.g., coal or lignite from Oklahoma or Texas originated by KCS).

B. A BNSF/MNA Through Route Would Be More Efficient Than The UP Route

In contrast to UP's circuitous route through Oklahoma, AECC witness Nelson shows that a BNSF/MNA route from the PRB to ISES, with an interchange between BNSF and

MNA at Lamar, MO, would be substantially shorter and more efficient. A shorter route means reduced resource consumption. Nelson VS, Part 5.

C. A BNSF/MNA Through Route Would Be Feasible

To determine whether it would be feasible to route loaded PRB unit coal trains over MNA, AECC's engineering experts, Jerry W. Heavin and David W. Brookings, inspected the line, as well as relevant documents obtained in discovery. They concluded that the line was entirely suitable for this use. See Verified Statement of Jerry W. Heavin and David W. Brookings (Heavin & Brookings VS).

This conclusion is hardly surprising. UP currently uses MNA to return unit coal trains north toward the PRB after the cars have been emptied at ISES. MNA also operates loaded trains carrying coal, grain, steel coils, and fertilizer in 286,000-lb cars, the same kind of cars that are used to carry coal from the PRB to ISES. There is no practical impediment to using MNA as part of a through route to ISES for PRB coal.

Mssrs. Heavin and Brookings also determined that the best interchange point for a BNSF/MNA through route would be at Lamar, MO.

V. ASSURING THAT THE INTERCHANGE COMMITMENT WILL NOT DESTROY THE THROUGH ROUTE

The evidence clearly meets the requirements of Section 10705, as the Board described them in its June 26, 2009 Decision. AECC respectfully requests that the Board enter an order prescribing a BNSF/MNA through route to ISES, via an interchange at Lamar, MO, and requiring MNA to establish a common carrier rate for interchange with BNSF.

But more than this is required to make the through route an effective remedy for the problems shown by the evidence. The interchange commitment imposed by UP would destroy the effectiveness of the through route if UP were allowed to impose the penalty-rent provisions on MNA with respect to traffic moving on the through route. The penalty-rent payments were structured to approximate the gross revenues UP would have received had it continued to operate the line rather than lease it to MNA. If MNA were required to charge enough, in order to participate in the through route, to cover an amount that equates to UP's former gross revenue, over and above MNA's other costs and appropriate contribution, the resulting rate would be so high that no traffic would ever move over the through route. See Nelson VS, Part 6.

Thus, UP would be able to prevent the through route prescribed by the Board from ever being effective. The status quo would remain unchanged (MNA now could offer to interchange ISES traffic with BNSF, as long as the rate is far higher than a monopolist's rate). This would prevent the achievement of the central purpose of the through route, the creation of an efficient new route to counter UP's abuse of its market power.

To make the establishment of the through route effective, the Board must expressly provide that the penalty rent provision is inapplicable and unenforceable with respect to movements under the prescribed through route. 4/

4/ Such a provision is not only required to accomplish the purpose of Section 10705, it is also necessary to further the purposes of Section 10701, which prohibits discrimination in rates by a rail carrier against another rail carrier. This Section specifically covers through routes and provides that "[d]ivisions of joint rates by rail carriers must be made without unreasonable discrimination against a participating rail carrier and must be reasonable." 49 USC 10701(a).

Furthermore, for a through route prescribed by the Board to achieve its purpose, UP must be prevented from eviscerating it by exercising other powers that it has, or claims to have, under its agreement with MNA. For example, UP might seek to destroy the through route by exercising its contractual option to substitute for MNA as the serving carrier at ISES. Indeed, going a step further, UP could unwind the transactions that created MNA and abandon portions of the line, leaving MNA unable to provide the movement specified in the through route. See Nelson VS, Part 7. It would not be consistent with the public interest if UP were allowed to nullify a Board order under Section 10705 by eliminating some or all of MNA's services.

Clearly, MNA is worried that UP will take such actions in response to the establishment of a BNSF/MNA through route. This is a legitimate fear that undoubtedly accounts for MNA's resistance to proposals by Entergy and MNA that would greatly increase MNA's business. AECC urges the Board to provide strong assurances to MNA that UP will not be allowed to retaliate against MNA in such a manner.

MNA has been operating for nearly 20 years, and not long ago apparently reached agreement with UP on a substantial program of infrastructure investments and service improvements. Any action by UP that had the effect of suddenly marginalizing or eliminating MNA would stand in stark contrast to that history, and be suggestive of an effort intended to frustrate implementation of the through route.

The very purpose of the penalty rent provision is to create discrimination in favor of UP and against any competitor of UP (in this instance, BNSF). Nelson VS, Part 6. This is an additional reason why the Board should provide that the penalty rent provision shall not apply to movements on the prescribed through route.

The harms that would be addressed by the through route stem from the UP's abuse of its market power, and not from the actions or even the existence of MNA. UP could have provided inadequate and inefficient service to ISES even if MNA had never been created. Allowing UP to eliminate MNA would not address the underlying problem, and thus should not be permitted to undermine valid remedies the Board may adopt.

In its Joinder in Entergy's Amended Complaint, AECC noted the possible threat by UP to "cancel the MNA lease unilaterally or otherwise to interfere with MNA's participation in such an alternative through route prescribed by the Board." Intervenor Arkansas Electric Cooperative Corporation's Joinder In And Supplement To Amended Complaint Filed By Entergy, ¶ 13. To prevent UP from doing so, AECC suggested that the Board consider granting BNSF trackage rights over UP, between Hoxie and Diaz Junction, AR, and over MNA (or over UP if it terminates the lease to MNA) between Diaz Junction and ISES, if UP cancelled the MNA lease or otherwise sought to eliminate MNA participation in the through route. Id., ¶¶ 13-18. The objective of such trackage rights would not be to create a new route between the PRB and ISES. The objective would be, by the threat to create such a route, to dissuade UP from interfering with a BNSF/MNA through route prescribed by the Board.

Although a BNSF route via Hoxie and Diaz Junction would meet some of the criteria for terminal trackage rights, there is no doubt that it would go substantially beyond the usual scope of terminal trackage rights. On the other hand, the Board has been willing to stretch to reach a goal that is important in the public interest.

In the UP/SP merger case, the Board found it desirable in the public interest to grant BNSF trackage rights over former SP lines. To make those rights effective, it was

necessary to include three stretches of KCS trackage, even though KCS was not a party to the merger. KCS argued that the Midtec standard (Midtec Paper Corp. v. CNW, 3 I.C.C.2d 171 (1986)) precluded granting the trackage rights over its objections. The Board rejected KCS's arguments and said "it is appropriate for us to retain the flexibility to use the terminal trackage rights provision to prevent carriers opposing [an action] from blocking our ability to craft . . . conditions that are clearly in the public interest . . . .". Union Pacific Railroad Company-Control And Merger-Southern Pacific Rail Corporation, 1 S.T.B. 233, 331 (1996).

Similarly, it would be in the public interest for the Board to provide that BNSF would be awarded terminal trackage rights to serve ISES via Diaz Junction if that would dissuade UP from taking action to undermine MNA and/or a Board-ordered through route via Lamar.

In its June 26, 2009 Decision in this case, the Board stated in unequivocal terms that a shipper's right to adequate service, reasonable rates, and "access to an alternative through route" cannot be contracted away by an agreement between rail carriers. The Board's remedy in this case needs to make clear to UP that the Board means what it says.

VI. CONCLUSION

Entergy and AECC have satisfied the requirements of Section 10705. Accordingly, the Board should enter an order prescribing a BNSF/MNA through route to ISES, via an interchange at Lamar, MO, and requiring MNA to establish a common carrier rate for interchange with BNSF. The Board should expressly provide in its order that UP may not impose the penalty rent provisions of its agreement with MNA with respect to traffic moving

under the through route. The Board should further provide in its order that if UP terminates the MNA lease or takes any other action that would prevent the successful operation of the through route, then BNSF shall have the right to serve ISES via trackage rights over the UP line from Hoxie to Diaz Junction, and the (now) MNA line from Diaz Junction to ISES.

Respectfully submitted,

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Dated: April 7, 2010

PUBLIC VERSION

VERIFIED STATEMENT

OF

MICHAEL A. NELSON

VERIFIED STATEMENT
OF
MICHAEL A. NELSON

1. Qualifications

My name is Michael A. Nelson. I am an independent transportation systems analyst with 30 years of experience in railroad competition and coal transportation. My office is in Dalton, Massachusetts. Prior to February 1984, I was a Senior Research Associate at Charles River Associates, an economic consulting firm in Boston, Massachusetts.

I have directed or participated in numerous consulting assignments and research projects in the general field of transportation. My work typically involves developing and applying methodologies based on operations research, microeconomics, statistics and/or econometrics to solve specialized analytical problems.

A considerable portion of my work has involved the study of issues related to the rail movement of utility steam coal from the Powder River Basin (PRB). In 1998, I provided testimony to this Board on behalf of the Mid-States Coalition for Progress regarding the proposal for a new rail line submitted by the Dakota, Minnesota & Eastern Railroad (DME) in Finance Docket No. 33407. Since that time, I have advised coal users individually and in groups on numerous matters related to PRB coal transportation, ranging from rate and productivity forecasts to fuel surcharges and other matters considered by the Board to development of technically and economically feasible options for an ultra-efficient, "World Class" rail line in the corridor between the PRB and Kansas

City.[1] Most recently, I provided testimony to the Board in Finance Docket No. 35305 on behalf of Arkansas Electric Cooperative Corporation (AECC) regarding coal dust issues.

A second major focus of my work has been analysis of the impacts of railroad transactions on rail competition and shipper transportation options. On behalf of The Denver and Rio Grande Western Railroad Company (DRGW), Rio Grande Industries (RGI) and the merged SP/DRGW system, I performed such analyses in many of the western rail merger proceedings of the 1980's and early 1990's, including SP/ATSF, UP/MKT, SP/DRGW, UP/CNW and RGI's acquisition of authority to purchase the CP (Soo) line between Kansas City and Chicago (ICC Finance Docket No. 31505). I subsequently advised CP regarding competitive issues associated with the Conrail breakup transaction (STB Finance Docket No. 33888), and provided analytical support to CP in its settlement with NS and CSX. I provided testimony regarding competitive issues on behalf of the Committee to Improve American Coal Transportation (a coal shipper group) in the proceeding that defined the Board's current merger rules, and on behalf of AECC in DME's acquisition of IMRL/ICE and in CP's proposed acquisition of DME/ICE.

In the course of advising shippers, I have performed detailed analyses of coal transportation issues and options for over 30 major coal-fired electric generating stations, plus several additional sites that have been candidates for construction of new coal-fired plants. Prominent among the existing facilities I have studied is the Independence Steam Electric Station (hereafter, "ISES") at Newark, AR, the primary focus of this proceeding. My past work related to this facility has provided extensive relevant background

[1] Portions of this work were presented in September 2006 at the conference and annual meeting of the National Coal Transportation Association.

information regarding to the routes operated by Union Pacific Railroad (UP) and Missouri & Northern Arkansas Railroad (MNA), the interchange commitments embodied in MNA's lease from UP, and the rail service problems that the plant has experienced.

I have also consulted to a number of shippers, railroads (U.S., Canadian and Mexican) and governmental bodies on various other railroad issues. Outside of my rail experience, I have analyzed the cost structure of the U.S. Postal Service in five dockets before the Postal Rate Commission. In addition, I have assisted in the preparation of numerous other verified statements presented before various regulatory and legal bodies, and authored many technical reports and articles in transportation journals.

I received a bachelor's degree from the Massachusetts Institute of Technology in 1977. In 1978, I received two master's degrees from MIT, one in Civil Engineering (Transportation Systems) and one from the Alfred P. Sloan School of Management (Public Sector Management), with concentrations in economics, operations research and transportation systems analysis. My curriculum vitae is attached as Exhibit A.

2. Subjects Covered in This Statement

I have been asked by AECC to:

- review the Board's description of the relief available to shippers pursuant to Section 10705, elaborate on the economic rationale for such relief and describe the circumstances at ISES that enable the exercise of rail market power to produce adverse service and efficiency consequences that warrant the prescription of a through route;

- review and discuss service inadequacies experienced at ISES, and their tangible consequences;

- assess the efficiency of the route used by UP to serve the plant relative to the efficiency of a BNSF Railway (BNSF)-MNA through route via Lamar, MO;

- examine the economic and public interest issues associated with establishment of rates and divisions on such a through route; and,

- identify and discuss considerations related to possible UP responses to a Board-ordered through route, and the importance of preventive action by the Board to minimize adverse impacts of such responses on the public interest..

The results of my work in each of these areas are presented below.

3. Section 10705 Relief and the Circumstances at ISES

In its decision dated June 26, 2009, the Board described the authority it holds under Section 10705, and reiterated a description provided previously (in the Bottleneck Decision) of the Board's view of the type of relief this provision offers to shippers:

> "Section 10705 authorizes the Board to force a carrier, including a bottleneck carrier (i.e., a carrier that is the sole source of rail transportation for part of a shipper's movement), to establish a new through route with another carrier when such a route is needed "to provide adequate, and more efficient or economic, transportation" or where the established route is "unreasonably long when compared with a practicable alternative through route." 49 U.S.C. 10705(a)(2)(B)-(C). The Board has stated that it will apply this competitive remedy where a bottleneck carrier has been shown to have "exploited its market power by providing inadequate service over its own lines or foreclosing more efficient service over another carrier's lines." Central Power & Light Co. v. Southern Pac., et al., 1 S.T.B. 1059, 1068 (1996) (CP&L), aff'd sub nom. MidAmerican Energy Co. v. STB, 169 F.3d 1099 (8th Cir. 1999)."

The circumstances cited by the Board that would justify prescription of a through route follow directly from the fact that a rail carrier that holds substantial market power over a given movement does not face the market discipline that in a competitive environment would act to ensure efficient production and a reasonable quality of service. When a shipper has few, if any, transportation alternatives, the provision of inadequate

service does not create an immediate risk that the carrier holding the market power will lose the traffic to a carrier that provides better service. Likewise, use by the carrier holding the market power of a circuitous route to move coal to a given plant does not expose that carrier to the risk that another carrier, using a more efficient route, will be able to underbid the incumbent carrier for the traffic and still earn an attractive contribution with lower total resource consumption.

Where market forces are insufficient to prevent the occurrence of inadequate and/or inefficient service, Section 10705 provides a remedy that addresses the underlying problem – i.e., the absence of viable transportation alternatives. Section 10705 does not mandate particular levels of service performance or efficiency. Instead, it provides for the addition of meaningful transportation alternatives to counteract adverse impacts on service and/or efficiency that may be occur when a carrier's market power is substantial and otherwise largely unchecked.

In the case of ISES, the carrier holding the market power is UP. While ISES is located on trackage leased by MNA from UP[2], and MNA is physically able to interchange with BNSF at several locations and also with Kansas City Southern Railway (KCS), it is commercially inhibited from doing so by the terms of its agreements with UP (commonly known as "paper barriers" or "interchange commitments").

As a result of these considerations, despite being physically served by MNA, ISES effectively is captive to UP.[3] Indeed, the terms of MNA's agreements with UP

[2] Trackage serving ISES connects with the MNA line approximately 8 miles from the physical connection between the MNA line and the UP main line at Diaz Junction, AR (near Newport). The MNA line previously was owned and operated by Missouri Pacific Railroad (MP), and formed a portion of MP's main line between Kansas City and the Memphis rail gateway.

[3] Other hypothetical methods for moving PRB coal to ISES (such as buildouts, rail-truck service, or barge transportation) are infeasible or ineffective because of distance, cost, or other obstacles.

explicitly permit UP to elect to replace MNA as the serving carrier at ISES. In that position, UP would not only foreclose service from MNA in cooperation with carriers other than UP, but under the Board's Bottleneck Rule would also insulate itself against the prospect of interchange with other carriers on the competitive portion of its route. In light of the current absence of viable transportation alternatives on the ground, as well as the limitations on competition imposed by the Bottleneck Rule, the ability to obtain relief under Section 10705 for problems arising from the exercise of UP market power is of critical importance at ISES.

In contemplating the prospective application in this proceeding of its authority under Section 10705, the Board should give particular attention to the breadth and depth of the resource misallocations that have occurred, and continue to occur, as a result of the absence of viable transportation alternatives at ISES. As discussed on further detail below, inadequate service and inefficient service each has caused substantial waste in the use of resources. While the language of the statute contemplates the imposition of a through route when either inadequate service or inefficient service has occurred, ISES has experienced both. This waste substantiates the need for the Board to impose the through route requested in this proceeding by Entergy/AECC.

4. Service Inadequacies Experienced at ISES

Burn Restrictions

In previous filings,[4] Entergy and AECC have described three major episodes of inadequate rail service that necessitated the imposition of restrictions on the burning of PRB coal at ISES below planned levels. The burn restrictions, in turn, necessitated acquisition of alternate fuels or substitute power to replace the generation that could not occur due to inadequate rail delivery of PRB coal. The first major episode occurred in 1993, when severe flooding in the midwest impacted rail service over a broad area. The second episode occurred in the wake of the UP/SP merger, which produced the then-unprecedented "meltdown" of rail service over a broad region for an extended period in 1997 and 1998. The third episode began with the PRB Joint Line infrastructure and throughput problems that arose in May 2005, and continued through 2006. The dollar impact on AECC caused by the need to acquire substitute fuels and power for ISES as a consequence of these episodes has been estimated by AECC to be at least [redacted], which implies a total impact on ISES in the neighborhood of [redacted].[5]

[4] See, for example, Entergy Arkansas, Inc. and Entergy Services Inc., "Opening Evidence and Argument" (July 11, 2008), Verified Statement of Daniel B. Gray at pages 5-11. See also STB Ex Parte No. 672, Rail Transportation of Resources Critical to the Nation's Energy Supply, "Written Submission of Arkansas Electric Cooperative Corporation" (July 5, 2007); "Supplemental Written Submission of Arkansas Electric Cooperative Corporation" (December 28, 2007) and STB Ex Parte No. 575, Review of Rail Access and Competition Issues - Renewed Petition of The Western Coal Traffic League, "Summary of Presentation by Jeffrey G. Herndon on behalf of Entergy Services, Inc., Entergy Arkansas, Inc., and Arkansas Electric Cooperative Corporation" (July 27, 2006).

[5] Estimate supplied by AECC. AECC's owns 35 percent of ISES, but its actual usage of the output of the plant, and corresponding share of variable expenses, normally is slightly below this level. For analysis purposes, AECC's share is approximated as 1/3 of total variable expenses.

Stockpile Size

In response to chronic delivery problems, the target stockpile size at ISES has basically been [redacted], from approximately [redacted] to approximately [redacted].[6] On an order of magnitude basis, the additional inventory carrying cost borne by ISES as a result of chronic rail service problems can be calculated as the product of the [redacted] times the delivered cost per ton and a representative interest rate. Using a delivered cost estimate of $30.80/ton[7] and an interest rate of [redacted], inadequate rail service is causing ISES to carry over [redacted] of inventory that otherwise would be unneeded at a carrying cost of [redacted].

Car Supply

Chronic delivery problems at ISES, including cycle time degradations, have created a need for more railcars than historically were needed to move PRB coal to the plant. In part, this need was met through the improvised creation of an additional trainset made up of spares supplied by Entergy/AECC, and in part UP has periodically supplied some of its own cars in efforts to counteract delivery shortfalls. Notwithstanding these efforts, Entergy/AECC have had to acquire at least one additional trainset to support the flow of PRB coal to ISES at historical levels.[8]

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[6] I have been advised by AECC that a more complex algorithm for determining target inventory levels has been introduced, but that as an approximation it is reasonable to treat the change as an addition of [redacted] tons.

[7] Estimated from the ISES delivered fuel cost of $1.75 per million btu reported by Entergy for 2008 to the Arkansas Public Service Commission, and a heat content of 8800 btu/lb.

[8] In view of the wide swings over time in market conditions for railcars, and the fact that railcars acquired by Entergy/AECC operate in a fleet that is dispatched to serve the needs of more than one plant, the cost of supplying extra railcars specifically associated with service problems at ISES has not been quantified. On an order of magnitude basis, if railcars cost $70,000 each, the value of a single 135-car trainset is approximately $9.45 million.

* * *

These impacts have resulted primarily from the absence of viable alternatives to UP rail service. If there were a viable alternative to the UP route, then it could be used to deal with service problems that arise. Moreover, if UP knew an alternative was available, UP would have a greater incentive to avoid such service problems in the first place. While the presence of any specific alternative may not fully remediate every service issue that arises, the absence of any such alternative ensures that market forces will not fulfill the role of which they are capable to mitigate and prevent adverse impacts from service problems.

5. Efficiency Issues Associated with Routes to ISES

The MNA route from Kansas City to ISES is [redacted] miles in length.[9] Prior to the creation of MNA, this is the route that was used by UP to move loaded coal trains to ISES. When UP then diverted loaded ISES coal trains to its route via Wagoner, Oklahoma, it added nearly 170 miles to each loaded movement.[10]

AECC witnesses Heavin and Brookings have identified Lamar, MO as the preferred point of interchange for a BNSF-MNA through route to serve ISES.[11] From

[9] See UP-HC-0014414.

[10] Loaded PRB coal trains moving southward through Kansas City have traversed different paths since the time the ISES movement first was diverted to UP's route via Oklahoma route. It is understood that through part of 2007, ISES trains normally travelled approximately 575 miles south of Kansas City. While UP recently appears to have reduced somewhat the mileage incurred by PRB coal trains moving southward through Kansas City, that does not alter the fact that UP has relied on its market power to implement a route that was (and still is) highly circuitous relative to the MNA route.

[11] This finding is consistent with MNA's conclusion that "Lamar, MO appears to require the least construction build-out and to pose the least operational challenges", compared to Fort Scott, KS, Joplin, MO, and Aurora, MO. *Missouri & Northern Arkansas Railroad Company, Inc. Response To Intervenor Arkansas Electric Cooperative Corporation's First Interrogatories And Request For Production Of Documents*, Response To Interrogatory No. 4. It is also consistent with past efforts to examine the relative merits of different potential interchange points for BNSF-MNA service to ISES. As shown in [Entergy Counsel's Exhibits (July 11, 2008), Exhibit 15], [redacted]

Kansas City, a BNSF-Lamar-MNA route to ISES is approximately 420 miles, far shorter than UP's Oklahoma route. Even allowing for UP's generally shorter route compared to BNSF for movements between the PRB and Kansas City, and UP's recent mileage improvement on PRB coal trains moving southward through Kansas City, the BNSF-Lamar-MNA route to ISES for loaded trains is over 60 miles shorter than the UP route via Oklahoma.[12]

6. Through Route Rates and Divisions

For a through route prescribed by the Board in this proceeding to accomplish its central purpose – that is, to introduce market forces to counter harms observed from the exercise of market power – the Board must ensure that the penalty rent terms of UP's agreement with MNA do not apply to the traffic moving on the through route. If UP could apply the penalty rent to such movements, the through route would not change the status quo. Just as at present the penalty rent effectively prevents MNA from interchanging ISES traffic with BNSF, because the penalty rent would require a rate that is far higher than a monopolist's rate, the same situation would apply to the through route if UP were allowed to charge the penalty rent. The penalty rent provisions would defeat the public interest purpose of a through route prescribed under Section 10705.

The economic function of the interchange commitments in the MNA lease is to create discrimination in the distribution of traffic interchanged by MNA in favor of UP and against the connecting lines of other rail carriers, including BNSF. For the ISES

[redacted].

[12] For example, for movements from the North Antelope Mine, which in recent years has accounted for the substantial majority of coal burned at ISES, the BNSF-Lamar-MNA route to the plant would be approximately 814 miles north of Kansas City plus 420 miles south of Kansas City, for a total of 1,234 miles, while the current UP route is [redacted] miles north of Kansas City plus [redacted] miles south of Kansas City, for a total of [redacted] miles. See UP-HC-0014414.

traffic at issue in this proceeding, this discrimination results largely from MNA's obligation under the terms of the lease to make large payments to UP on the basis of MNA's interchange of traffic with carriers other than UP. An obligation to make comparable payments does not arise when MNA interchanges with UP, and the payments do not correspond to any unique resource costs associated with MNA interchange involving carriers other than UP. Instead, the payments form a prejudicial treatment that discriminates categorically against interchange by MNA with carriers other than UP. Such discrimination would be inconsistent with the provisions of Section 10701 (a) and (b).

By UP's own description the penalty payments were structured to approximate the gross revenues UP would have received had it continued to operate the line rather than lease it to MNA.[13] This would include UP's resource costs and profits. For MNA to interchange substantial volumes with a carrier other than UP, MNA's division would of course need to cover the resource costs incurred by MNA, plus an appropriate contribution. However, since MNA's division would also need to cover an amount that equates to UP's former gross revenue, it is not surprising that MNA has never moved traffic that would trigger the penalty rent.

To fulfill the public interest purpose of a through route under Section 10705, and to ensure that any prescribed through route involving BNSF can be implemented without facing the type of improper discrimination referenced in Section 10701, it is essential that the Board declare the penalty rent provision to be inapplicable and unenforceable with respect to movements under the requested through route.

[13] See, for example, "Union Pacific's Reply Evidence and Argument" (August 11, 2008), Verified Statement of Warren C. Wilson at 13.

7. UP Response To Defeat The Through Route

Provisions of UP's agreements with MNA, if exercised, could prospectively frustrate achievement of the objectives of a Board-ordered through route. For example, UP might exercise the option to substitute for MNA as the serving carrier at ISES. Going a step further, UP has already threatened to unwind the transactions that created MNA and abandon portions of the line, leaving MNA unable to provide the movement specified in the through route. It would not be consistent with the public interest if a Board order under Section 10705 to remedy specific problems precipitated a UP response that eliminated some or all of MNA's services while nullifying the effectiveness of the Board's prescription. However UP almost certainly would experience a temptation to try to do so.

The Board's consideration of this issue should give considerable weight to the fact that MNA has been operating for nearly 20 years, and not long ago reached agreement with UP on a [redacted] Any action by UP that had the effect of suddenly marginalizing or eliminating MNA would stand in stark contrast to that history, and be suggestive of an effort intended to frustrate implementation of the through route.

In this context, the Board needs to include in any order prescribing the requested through route provisions that would discourage UP from attempting to destroy the through route by exercising claimed rights under its agreements with MNA. An effective way to do that would be to include in the order a contingent mechanism that would ensure the availability of an alternative route to serve ISES in the event that UP eliminated MNA or otherwise prevented service over the BNSF-MNA through route.

This could be accomplished, for example, by referencing its authority to grant - or by granting - to BNSF conditional trackage rights to serve ISES via Diaz Junction that would be triggered if UP took action that prevented use of the Board-prescribed through route. If the Board makes it clear to UP that terminating the MNA lease, or taking any other actions under its private agreements, would not prevent alternative rail service to ISES, that would dissuade UP from taking action to undermine MNA and/or a Board-ordered through route via Lamar.

Through that, or some other means, the Board must ensure that actions that it takes to remedy the resource misallocations that have resulted from the exercise of UP's market power at ISES will not be undone by contractual rearrangements that do not address the market power.

VERIFICATION

I, Michael A. Nelson, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement.

Michael A. Nelson

Executed on April 2, 2010

Exhibit A

Curriculum Vitae – Michael A. Nelson

MICHAEL A. NELSON

131 North Street
Dalton, MA 01226

EDUCATION

M.S. Civil Engineering, Massachusetts Institute of Technology

M.S. Management, Alfred P. Sloan School of Management, Massachusetts Institute of Technology

B.S. Management, Massachusetts Institute of Technology

Concentrations in transportation systems analysis, economics and operations research.

EXPERIENCE

Mr. Nelson is an independent transportation systems analyst. He provides management and economic consulting and litigation support. His work typically involves developing and applying methodologies based on operations research, microeconomics, statistics and/or econometrics to solve specialized analytical problems, as illustrated by the following examples of his experience:

Railroad

On behalf of Arkansas Electric Cooperative Corporation (AECC), Mr. Nelson submitted testimony to the Surface Transportation Board (STB) in Finance Docket No. 35081. This testimony addressed the effects of the proposed control by Canadian Pacific Railway (CP) of Dakota, Minnesota & Eastern Railroad (DME), with a particular focus on the planned DME construction project and other potential initiatives to create a new rail outlet for coal from the Powder River Basin (PRB).

On behalf of a group of landowners, Mr. Nelson developed information and provided oral testimony regarding DME's PRB project in land condemnation proceedings initiated by DME in Wyoming.

Also on behalf of AECC, Mr. Nelson submitted testimony to the STB in Ex Parte No. 657 (Sub-No. 1) regarding specific proposals to improve the "stand alone" cost (SAC) methodology used to assess the reasonableness of contested rail rates.

Also for AECC, Mr. Nelson analyzed issues related to rail transportation service in the supply of coal to two potential sites for a new electric generation facility in Arkansas. This work included analysis of likely rate levels in light of movement- and site-specific competitive and operational considerations.

On behalf of a group of coal users, including Ameren, Dominion and AECC, Mr. Nelson submitted a verified statement to the STB in Finance Docket No. 34421. This testimony addressed technical, operational and public interest considerations associated with a proposal to permit the construction of a competing rail line within the unused portion of an existing rail carrier's right-of-way.

Mr. Nelson has developed information to assist coal users in responding to the coal supply problems created by the May 2005 derailments and subsequent rail throughput constraints on the PRB Joint Line. He has identified potential actions by coal users to improve PRB coal throughput, transportation issues for substitute coals and fuels, and steps to facilitate rail cooperation.

In response to a public request by the STB for suggested improvements in the SAC methodology, Mr. Nelson provided written and oral testimony in STB Ex Parte No. 657. This testimony identified potential methodological refinements in 10 specific areas, and was cited by Commissioner Mulvey for its high responsiveness to the Board's request.

Mr. Nelson is the founder of the Coalition to Foster Improved Rail Economy ("CoalFIRE"). This initiative is open on a subscription basis to current and prospective PRB coal users. It identifies and promotes awareness of specific potential group actions to improve the competitiveness of PRB rail transportation options within the current legal and regulatory framework. Over 20 specific potential group actions have been identified to date, including steps to add/restore competitors, increase the effectiveness of existing competitors, increase customer leverage and

develop external pressure for reasonable competitive conduct by the current PRB rail duopoly.

For a powerplant developer, Mr. Nelson analyzed issues related to rail transportation service in the supply of coal to two potential sites for a new generation facility in Oklahoma. This work included analysis of likely rate levels in light of movement- and site-specific competitive and operational considerations.

Mr. Nelson prepared a 10-year forecast of expected changes in rail productivity and competitive rail rate levels for the movement of coal from the PRB. This forecast has been provided on a subscription basis to interested parties, and is believed to be the only such forecast that is based on analysis of specific anticipated productivity enhancements (as opposed to extrapolation of past trends). Subscribers have used this information to analyze the merits of converting to PRB coal, to support contract negotiations and for other strategic and planning purposes.

For a powerplant developer, Mr. Nelson analyzed issues related to the anticipated reliance on competitive rail transportation service in the supply of coal to a planned new generation facility in Missouri. This work included analysis of likely rate levels in light of unique limitations faced by one of the competing rail lines.

On behalf of a group of over two dozen major electric utilities, Mr. Nelson provided strategic guidance and analytical support, and participated in negotiations with a Class I railroad regarding prospective multi-billion dollar investments by the utilities to improve their coal transportation options.

For a midwestern utility, Mr. Nelson assisted in the development of improved transportation options for a large coal-fired generating station. As part of this work, he reviewed an analysis performed by a major engineering contractor, and identified a series of cost-effective options that had been overlooked. He then provided strategic guidance and analytical support in the development process.

For a mining company, Mr. Nelson analyzed the transportation options that would be available for a prospective new facility in western Colorado. This included

detailed consideration of the "new facilities" condition imposed by the STB in its approval of the merger of the Union Pacific (UP) and Southern Pacific (SP) railroads.

For AECC, Mr. Nelson submitted statements to the STB in Finance Docket Nos. 34177 and 34178. These statements addressed the actual and potential competitive roles of I&M Rail Link (IMRL) in domestic coal transportation, and the prospective impacts associated with control of IMRL by the Dakota, Minnesota and Eastern Railroad (DME).

On behalf of the Town of Easton (MA), representing a coalition of towns, Mr. Nelson identified and corrected a series of substantial errors and inconsistencies in the Final Environmental Impact Report for the proposal by the Massachusetts Bay Transportation Authority (MBTA) to provide new commuter rail service to New Bedford and Fall River. This extended Mr. Nelson's previous analyses, which had identified and documented a series of significant errors in the development of the MBTA's conclusions regarding the alleged infeasibility of a key alternative route. Mr. Nelson also identified and made preliminary assessments of other alignment and operational possibilities that had been inappropriately omitted from consideration.

As a subcontractor to The Brattle Group, an economic consulting firm, Mr. Nelson provided guidance to the Mexican railroad TFM regarding the identification of different types of competitive and efficiency issues raised by the proposed merger of the other two principal Mexican railroads (Ferromex and Ferrosur). The merger was denied by both the national transportation and antitrust authorities.

For the Cowboy Railroad Development Company (CRDC), a group of major electric utilities, Mr. Nelson directed the identification and evaluation of alternative routes and strategies for creating a new railroad access across Nebraska to coal mines in the PRB.

As part of the work for CRDC, Mr. Nelson analyzed the degree to which the UP/SP merger foreclosed competitive routes that could be offered by a new PRB rail carrier. The results of this analysis were submitted to the STB in Finance Docket 32760 (Sub-No.21), which provided oversight of the UP/SP merger and its impacts.

For a major electric utility, Mr. Nelson performed a detailed analysis of rail transportation options for PRB coal movements to the Sunflower Electric generating station at Holcomb, KS. The results of this analysis were used by the utility in assessing the merits of investing in a planned expansion of that facility.

For an assortment of major electric utilities and power producers, Mr. Nelson has performed detailed analyses of rail transportation options, including build-outs, for a total of over 30 large coal-fired generating stations. The results of these analyses have served as the basis for management decisions that are projected to save many millions of dollars in fuel costs.

On behalf of AECC, Mr. Nelson submitted a statement to the STB in Finance Docket 32760 (Sub-No.21). This statement addressed competitive issues resulting from the UP/SP railroad merger, with a particular focus on the effect of trackage rights compensation levels.

On behalf of the Committee to Improve American Coal Transportation (IMPACT), Mr. Nelson submitted a statement to the STB in Ex Parte 582 (Sub-No. 1). This statement addressed a wide range of issues related to rail merger policy.

For a major Class 1 railroad, Mr. Nelson assisted senior management staff in the design and evaluation of a potential construction project.

For the Mid-States Coalition for Progress (a group of landowners), Mr. Nelson analyzed the proposal by DME to construct an extension of its line into the PRB. Mr. Nelson developed estimates of DME's volumes and unit revenue levels on the basis of a plant-by-plant analysis, taking into account likely future market conditions and the competitive capabilities of the UP and Burlington Northern Santa Fe (BNSF). Mr. Nelson's analysis was filed at the STB (Finance Docket No. 33407).

For the National Railroad Passenger Corporation (AMTRAK), Mr. Nelson investigated issues related to the definition of "express" traffic that AMTRAK is permitted to carry (STB Finance Docket No. 33469). Mr. Nelson analyzed relevant data from the STB Rail Waybill Sample and the Census of Transportation, and investigated the factors affecting use

of Amtrak by the U.S. Postal Service. The definition of "express" eventually adopted by the STB was consistent with Mr. Nelson's findings.

For the Moffat Tunnel Commission (Colorado), Mr. Nelson analyzed the factors affecting future railroad use of that tunnel, which traverses the Continental Divide and serves the principal Colorado coal fields on the UP line that formerly was the Denver and Rio Grande Western Railroad (DRGW) main line west of Denver. The tunnel had historically been owned by the Commission (and leased to the railroad), but under sunset legislation was being offered for public sale. Mr. Nelson's analysis included study of the utilization of Colorado/Utah vs. PRB coals in the context of the central corridor conditions imposed by the STB in the UP/SP merger.

For CP, Mr. Nelson performed detailed studies of competitive and traffic issues associated with the acquisition and break-up of Conrail by Norfolk Southern and CSX (Finance Docket No. 33388). These studies included analyses of competitive issues in the area served by the former Delaware and Hudson (a CP subsidiary) and in the midwest, competitive issues involving coal traffic throughout the Conrail service area, and traffic impacts associated with potential remedial conditions. CP relied upon the results of Mr. Nelson's studies in reaching its settlements with Applicants in that case.

For SP, Mr. Nelson provided expert testimony before the Interstate Commerce Commission (ICC) in Finance Docket No. 32133 (the proposed control of C&NW by UP). This testimony was based primarily on Mr. Nelson's analyses of data from the Rail Waybill Sample, which identified substantial numbers of specific flows for which the proposed transaction created different types of potential competitive problems (including losses of point-to-point competition, source competition, competition in grain originations, and shipper leverage). In addition, Mr. Nelson's testimony utilized Rail Waybill Sample data to demonstrate the occurrence of merger-related foreclosure from previous UP acquisitions, and provided statistical support for SP's traffic study. Mr. Nelson also conducted a detailed investigation of the impact of the merger on source competition for western coal.

For Rio Grande Industries (RGI), Mr. Nelson provided expert testimony before the ICC in Finance Docket No.'s 31505 (the proposed acquisition by RGI of Soo's Kansas City - Chicago line) and 31522 (the proposed acquisition by RGI of the Chicago, Missouri and Western line between St. Louis and Chicago) based on his analysis of Rail Waybill Sample data. This testimony involved analysis of potential cumulative anti-competitive effects from the proposed transactions, development of time-series estimates of rail traffic volumes and carrier shares in different flows, and assessment of the statistical reliability of the portions of the testimony of other RGI witnesses that were based on Rail Waybill Sample data.

Also for RGI, Mr. Nelson provided expert testimony before the ICC in Finance Docket No. 32000, the consolidation of SP and DRGW. This testimony involved analysis of Rail Waybill Sample data to determine rail traffic volumes in different flows, the statistical reliability of studies conducted by other RGI witnesses, and potential competitive problem flows associated with a consolidation of SP and KCS.

For DRGW, Mr. Nelson provided expert testimony before the ICC in Finance Docket No. 30800 (the acquisition of MKT by UP) based on his analysis of Rail Waybill Sample data. This testimony involved examination of intramodal competition in the central corridor, development of traffic flow databases utilized by other witnesses, assessment of the statistical reliability of other witnesses' studies, and analysis of issues related to use of market share data from waybill samples to evaluate the competitive impact of the proposed merger.

Also for DRGW, Mr. Nelson provided extensive expert testimony before the ICC regarding a number of issues raised by the proposed merger of SP with ATSF (Finance Docket No. 30400):

* Mr. Nelson provided a detailed comparison of the economic and operating characteristics of the intercity trucking and railroad industries, with a particular focus on long-haul markets. Mr. Nelson's analysis of the trucking industry utilized the National Motor Transport Data Base (NMTDB). For this study, Mr. Nelson developed and implemented analytical techniques that compensate for the non-random sampling procedures employed in the gathering of

the NMTDB, making it possible to use this source to reliably conduct studies at the industry and corridor level. The Commission adopted the results of Mr. Nelson's study verbatim in its analysis of the anti-competitive consequences of the proposed merger.

* Using the NMTDB and the Rail Waybill Sample, Mr. Nelson analyzed the extent to which rail pricing and services on selected traffic are determined by competing intercity trucking alternatives available to shippers. This analysis was conducted at a highly detailed level, and included explicit accounting for the handling characteristics of each rail commodity and the operating economics of the corresponding truck equipment needed.

* Mr. Nelson analyzed the tests applied by various economists in the proceedings, including those of the U.S. Departments of Justice and Transportation, to identify rail traffic that would most likely be subject to anti-competitive effects in the wake of the proposed merger. Mr. Nelson identified circumstances under which these tests systematically yield invalid results, and provided guidelines for their proper application.

* Mr. Nelson identified improvements needed in the merger applicants' initial methodology for estimating the rail traffic diversions that likely would result from the proposed merger.

* In addition to this expert testimony, Mr. Nelson served as principal investigator for several studies underlying testimony offered by other witnesses, addressing issues related to intramodal (rail) competition, product and source competition, shipper benefits and leverage and trackage rights compensation. Mr. Nelson also conducted a number of special studies on request for other witnesses and counsel.

For a private client, Mr. Nelson participated in a study of the purchase and utilization of jumbo covered hopper cars by shippers and railroads. This study involved extensive analysis of the Rail Waybill Sample and other data sources, and included a detailed examination of historical car shortages in light of economic and traffic conditions, and other related factors. The results of Mr. Nelson's work were incorporated in testimony before the ICC.

As a subcontractor to consulting firms, Mr. Nelson has participated in a number of other rail-related studies. These include (1) analysis of Rail Waybill Sample data to address issues stemming from traffic protective conditions at the Jacksonville (FL) gateway between FEC and CSX, and (2) analysis of CN's Port Huron-Sarnia tunnel project and the alternative of a tunnel at Detroit-Windsor.

Postal Service

For Magazine Publishers of America (MPA) acting on behalf of a coalition of periodicals mailers, Mr. Nelson analyzed several issues related to the purchased transportation costs incurred by the Postal Service. This included identification of feasible cost reductions and efficiency improvements, as well as development of needed refinements in the methods used by the Postal Service to analyze transportation costs. The results of this analysis were presented to the Postal Rate Commission (PRC) in the R2000-1 omnibus rate case. A portion of the identified costing refinements has been adopted by the Postal Service.

Mr. Nelson identified and developed opportunities for a major publisher to create more efficient and desirable price/service options by avoiding selected costs in its mailings of periodicals. This work included consideration of transportation, delivery and unfunded retirement liability costs.

For Foster Associates (under contract to the Postal Service), Mr. Nelson worked in the following areas:

* Delivery costing - Mr. Nelson developed a series of refinements in delivery cost analysis procedures. These refinements included analysis of driving time on motorized letter routes, collection costing and extensive revision of costing for special purpose routes and special delivery messengers. In support of the new methodologies, Mr. Nelson developed data collection plans and assisted in the development of survey instruments and innovative procedures to gather new field data from carrier and messenger operations. He conducted extensive analysis of the new data, including development of data cleaning and weighting procedures, analysis program logic, and specifications for new econometric models. He also identified an overlap in costing systems that produced a "double-count" of delivery activity performed by personnel other than special delivery

messengers but charged to LDC 24 (Cost Segment 9). He developed spreadsheet modifications needed to incorporate the costing refinements and new data, and eliminate the "double-count" problem. The results of Mr. Nelson's delivery costing work were presented before the PRC in the R97-1 omnibus rate case. The PRC adopted 9 out of 10 of Mr. Nelson's recommended methodological changes, 2 with commendations.

* New products - Mr. Nelson identified the cost basis for a number of potential new product offerings involving Express Mail and Priority Mail, and developed the analytical framework and information needed to support their implementation. This included design and analysis of a new field study of relevant Express Mail piece characteristics, which was also presented by Mr. Nelson in the R97-1 rate case.

* Litigation support - In Docket No. R94-1, Mr. Nelson reviewed intervenor testimony regarding city delivery carrier and transportation issues, and developed discovery and cross-examination topics for Postal Service counsel.

* IOCS - Mr. Nelson developed refinements in IOCS data gathering procedures to improve the validity and precision of available information regarding Express Mail activities. Mr. Nelson then interpreted the initial results from the new data and provided suggestions for improvements in Express Mail costing procedures.

* Postal AMR - Mr. Nelson developed a plan for analyzing the street time costs associated with a proposal to have postal vehicles perform automated meter reading for utility companies.

* Eagle Network - Mr. Nelson developed a potential methodology for attributing the costs of dedicated air transportation services procured by the Postal Service.

For United Parcel Service (UPS), Mr. Nelson provided extensive expert testimony before the PRC in Docket No. R90-1. This testimony presented Mr. Nelson's studies of cost causality and/or elasticity within the city delivery carrier, special delivery messenger, vehicle service driver, purchased highway transportation and expedited air network operations of the Postal Service. These studies, which involved application of operations research

techniques and development of econometric models and other statistical analyses based on postal data, were referenced and relied upon extensively by the PRC in its Opinion and Recommended Decision. To a considerable degree, these studies represented extensions and refinements of Mr. Nelson's previous studies, which were presented before the PRC in Mr. Nelson's testimony in Docket No. R87-1, and in Docket No. RM86-2B, a rulemaking proceeding established in part to explore issues raised in testimony before the PRC in Docket No. R84-1 for which Mr. Nelson served as principal investigator.

Other

Mr. Nelson participated in an airport master planning study for Sydney, Australia. For this study, he developed a comprehensive set of site selection criteria and evaluation measures.

Until February 1984, Mr. Nelson was a Senior Research Associate at Charles River Associates (CRA), an economic research and consulting firm, where his work experience included the following:

Freight Transportation

Mr. Nelson served as Manager of Consulting Services for the National Motor Transport Data Base (described above), which at the time was sponsored by CRA. In this position, he was responsible for handling client requests for information from the database, including problem definition, sampling issues, conduct of analyses and reporting of results. He conducted specific analyses for a number of public and private clients.

Mr. Nelson served as principal investigator for a study of motor carrier safety and traffic characteristics. This study involved extensive analysis of a number of databases, including the FHWA "Loadometer" Study, the 1977 Census of Transportation, the ICC "Empty/Loaded" Survey, and the NMTDB. The results of his work were incorporated in testimony before the U.S. District Court on behalf of a private client engaged in litigation with a state over the use of twin trailers.

Mr. Nelson participated in several other projects providing support for motor carriers involved in litigation cases.

For these clients he performed detailed financial analyses of motor carrier operations and traffic in different settings, and assisted in the preparation of testimony and briefs. Mr. Nelson also served as an internal consultant on a number of CRA's other motor carrier, railroad, and freight transportation studies.

For the U.S. Department of Transportation (DOT), Mr. Nelson was principal investigator of a study to develop a conceptual framework and data collection strategy for analyzing the impacts of the motor carrier regulatory reforms implemented under the Motor Carrier Act of 1980. For this project, Mr. Nelson was responsible for identifying and selecting specific research issues, data requirements, data sources and analytical techniques.

In a study for the Office of the Secretary of Transportation, Mr. Nelson made extensive use of probabilistic modeling techniques to develop quantitative estimates of potential fuel conservation resulting from selected aspects of proposed motor carrier regulatory reforms.

For DOT, Mr. Nelson was principal investigator for a study of the merits of alternative approaches that could be utilized by the ICC to implement the inflation-based index for allowable rate adjustments by railroads mandated by the by the Staggers Rail Act of 1980. For this study he analyzed the ICC's proposed approach and developed specific conclusions and recommendation in a number of issue areas, including selection of the basic index, productivity adjustments, treatment of profit and non-recurring expenses, frequency of index adjustment, rate averaging, regional differences, collective ratemaking and fuel surcharges. The results of this study were used by DOT in formulating its response to the ICC's proposed approach.

For a private client, Mr. Nelson analyzed the logistical considerations involved in siting a plant to process imported high-value mineral ores. This study, which was part of a larger study to assess the overall economic feasibility of plant construction and operation, involved comparisons of costs and other attributes of a variety of modes and modal combinations, including rail, inland waterway, motor carrier and TOFC.

In a study of urban freight consolidation alternatives conducted for the U.S. Department of Energy (DOE), Mr. Nelson utilized principles of network analysis, simulation and queuing theory to evaluate and critique the merits of previous studies, and recommend research approaches for analysis of route and terminal consolidation strategies.

Also for DOE, Mr. Nelson was a major contributor to a study of potential fuel-use changes that could occur in response to dramatic fuel price increases. Mr. Nelson's work focused on the freight and intercity passenger transportation sectors and included analyses of opportunities for improvements in fuel efficiency by each mode under different fuel price increase scenarios, as well as modal shifts and net traffic reductions caused by resulting cost (and rate) increases.

Passenger Transportation

Mr. Nelson served as principal investigator for a series of Service and Management Demonstration Evaluations conducted for DOT. For three parallel assessments of the feasibility of user-side subsidies, and one demonstration of taxicab regulatory reforms and paratransit service innovations, he developed instruments for and implemented several surveys, conducted data analysis and prepared Final Evaluation Reports. For an assessment of alternative transit transfer policies, he developed research issues and data requirements, selected and supervised interviews of over 40 transit properties, and wrote or was responsible for all major deliverables. He assisted DOT in the development of research issues to be addressed in demonstrations of innovative checkpoint paratransit services and in the review of a proposed paratransit policy.

Also for DOT, Mr. Nelson was principal investigator of a study of methods to improve transit productivity and cost-effectiveness. This study involved the identification and documentation of 146 distinct productivity-enhancement measures that have been implemented at U.S. transit properties, assessment of the transferability of each measure to different settings, and development of impact magnitude estimates. Prior to this project, Mr. Nelson developed over two dozen ideas for possible innovations to improve transit productivity and cost effectiveness.

Mr. Nelson participated in a financing study of the New York Metropolitan Transportation Authority's proposed multi-billion dollar capital improvement program. Mr. Nelson's responsibilities in this project involved econometric analysis of operating costs, with a particular emphasis on identifying the variability of different cost components with alternative future levels of rapid rail, bus, and commuter rail activity. The results of his work were incorporated in the MTA's Official Statement for the successful initial offering of $250 million in transit revenue bonds.

For DOT, Mr. Nelson participated in a study to develop technical guidelines for use by local planners to satisfy alternatives analysis requirements. For this study he developed a matrix-based method for determining data requirements in different scenarios, and played a major role in the development of a method for generating locally responsive alternatives to high-capital transit investments using multicriteria decision techniques.

For the Massachusetts Port Authority, Mr. Nelson participated in a study to forecast future levels of passenger and air cargo activity at Logan International Airport. For this study, Mr. Nelson supervised data collection efforts, developed methods for synthesizing data from diverse sources (FAA, CAB, Port Authority records, etc.) to yield relevant market segment size estimates, and analyzed seasonality and short-term peaking phenomena.

Mr. Nelson also participated in a quantitative assessment of the market penetration potential and associated impacts of electric vehicles for the Electric Power Research Institute (EPRI).

Thesis

In his graduate thesis at M.I.T., which fulfilled the thesis requirements for two Master's degrees, Mr. Nelson developed a comprehensive review of the theoretical and practical shortcomings encountered in the use of linear programming in a real time multiple vehicle routing and scheduling system (dial-a- ride). Based on network analysis techniques, he then developed a set of heuristic algorithms that avoided the shortcomings inherent in the linear programming (LP) approach. The performance of these algorithms was simulated by computer and found to meet or

exceed the LP's performance in a variety of scenarios drawn from actual operating data.

TESTIMONY

Surface Transportation Board, Finance Docket No. 35081

- Verified Statement, 3-4-08

- Reply Verified Statement, 5-19-08

U.S. District Court - District of Wyoming, Civil No. 07 CV-142-D

- Oral Testimony, 3-19-08

- Oral Testimony, 5-29-08

Surface Transportation Board, Ex Parte No. 657 (Sub-No. 1)

- Written Testimony, 5-1-06

- Reply Testimony, 5-31-06

Surface Transportation Board, Finance Docket No. 34421

- Verified Statement, 9-29-05

Surface Transportation Board, Ex Parte No. 657

- Written Testimony, 4-20-05

- Oral Testimony, 4-26-05

Surface Transportation Board, Finance Docket No. 34178

- Verified Statement, 11-14-02

Surface Transportation Board, Finance Docket No. 34177

- Verified Statement, 7-18-02

Surface Transportation Board, Finance Docket No. 32760 (Sub-No. 21)

- Verified Statement, 8-17-01

- Verified Statement, 8-18-00

Postal Rate Commission, Docket No. R2000-1

- Direct Testimony, MPA-T-3, 5-22-00

Surface Transportation Board, Ex Parte No. 582 (Sub-No. 1)

- Statement, 5-16-00

Surface Transportation Board, Finance Docket No. 33407

- Verified Statement, 8-31-98

- Supplemental Verified Statement, 10-28-98

Surface Transportation Board, Finance Docket No. 33469

- Verified Statement, 11-10-97

- Reply Verified Statement, 11-25-97

Postal Rate Commission, Docket No. R97-1

- Direct Testimony, USPS-T-19, 7-10-97

Interstate Commerce Commission, Finance Docket No. 32133

- Verified Statement, SP-20 (Volume 2), 11-29-93

- Rebuttal Verified Statement, SP-41 (Volume 2), 7-28-94

Postal Rate Commission, Docket No. R90-1

- Direct Testimony, UPS-T-1, 7-16-90

- Rebuttal Testimony, UPS-RT-1, 10-1-90

Interstate Commerce Commission, Finance Docket No. 31505

- Verified Statement, RGI-14/SOO-14 (Volume 2), 9-15-89

- Rebuttal Verified Statement, RGI-55/SOO-55, 2-15-90

Interstate Commerce Commission, Finance Docket No. 31522

- Verified Statement, RGI-7/CMW-7 (Volume 2), 8-25-89

Interstate Commerce Commission, Finance Docket No. 32000

- Verified Statement, RGII-10, 2-22-88

- Verified Opposition and Rebuttal Statement, RGII-59, 6-1-88

Postal Rate Commission, Docket No. R87-1

- Direct Testimony Concerning Special Delivery Messenger and City Delivery Carrier Street Time Costs, UPS-T-1, 9-14-87

- Rebuttal Testimony, UPS-RT-5, 11-23-87

- Statement Regarding SDWAFS Analyses, 12-1-87

Interstate Commerce Commission, Finance Docket No. 30800

- Verified Statement, DRGW-13, 4-7-87

- Verified Statement, DRGW-24, 7-13-87

Postal Rate Commission, Docket No. RM86-2B

- Direct Testimony Concerning City Delivery Carrier Street Time Costs, UPS-T-1, 12-1-86

Interstate Commerce Commission, Finance Docket No. 30400

- Verified Opposition Statement, DRGW-20, 11-21-84

- Verified Opposition Statement, DRGW-23, 12-10-84 (with Paul H. Banner)

- Verified Rebuttal Statement, DRGW-33, 5-29-85

SELECTED PUBLICATIONS

Reports Prepared for Charles River Associates

User-Side Subsidy Demonstration Project: Lawrence, Massachusetts. Final Evaluation Report. Prepared for U.S. Department of Transportation. October, 1983.

Analysis of Labor Conditions and Union Status in the Intercity Trucking Industry. Final Report. Prepared for U.S. Department of Transportation. August, 1983.

Actions Being Taken by Transit Operators to Improve Performance. Final Report. Prepared for U.S. Department of Transportation. April, 1983.

User-Side Subsidy Demonstration Project: Montgomery, Alabama. Final Evaluation Report. Prepared for U.S. Department of Transportation. December, 1982.

Plan for Monitoring the Impacts of Regulatory Reforms Implemented Under the Motor Carrier Act of 1980. Final Report. Prepared for U.S. Department of Transportation. October, 1982.

New York City Transit Authority Revenue Feasibility Study: Economic Analyses and Projections. Final Report. Prepared for Metropolitan Transportation Authority, New York, NY. In part. October, 1982.

Taxi Regulatory Revisions in Dade County, Florida. Data Collection Plan. Prepared for U.S. Department of Transportation. April, 1981.

Analysis of Rail Cost-Plus Pricing Systems. Prepared for U.S. Department of Transportation. March, 1981.

Net Demand for Oil Imports: Preliminary Estimates of Short-Run Price Elasticities. Prepared for the U.S. Department of Energy. In part. December, 1980.

User-Side Subsidy Demonstration Project: Kinston, North Carolina. Final Evaluation Report. Prepared for U.S. Department of Transportation. October, 1980. Executive Summary reprinted in Taxicab Management November/December, 1981.

Potential Fuel Conservation from Regulatory Reform of the Trucking Industry. Prepared for Office of the Secretary of Transportation. July, 1980.

Operator Guidelines for Transfer Policy Design. Prepared for U.S. Department of Transportation. June, 1980.

State of the Art of Current Practices for Transit Transfers. Prepared for U.S. Department of Transportation. June, 1980.

"Generation of Transportation Alternatives." Technical Monograph prepared for U.S. Department of Transportation. January, 1979.

"Definition of Transportation Alternatives." Technical Monograph prepared for U.S. Department of Transportation. November, 1978.

Preliminary Analysis of Alternative Proposals to Encourage Efficient Service Concepts in Urban Freight Movement. Prepared for U.S. Department of Energy. In part. October, 1978.

Other Publications

Nelson, Michael and Daniel Brand. 1982. "Methods for Identifying Transportation Alternatives." Transportation Research Record 867.

Nelson, Michael, Daniel Brand and Michael Mandel. 1982. "State of the Art Current Bus Transfer Practices." Transportation Research Record 854.

Nelson, Michael and Jane Piro. March, 1982. "Implementation and Impacts of the Kinston, North Carolina User-Side Subsidy Demonstration Project." Specialized Transportation Planning and Practice.

Nelson, Michael and Paul H. Banner. 1981. "Analysis of Alternative Railroad Cost Recovery Procedures." Proceedings - Twenty-Second Annual Meeting of the Transportation Research Forum.

Nelson, Michael, Daniel Brand and Michael Mandel. 1981. "Use and Consequences of Timed Transfers on U.S. Transit Properties." Transportation Research Record 798.

Mellman, Robert, Michael Nelson and Jane Piro. 1980. "Forecasts of Passenger and Air Cargo Activity at Logan International Airport." Transportation Research Record 768.

Nelson, Michael. 1978. "Evaluation of Potential Replacements for Failing Conventional Transit Services." M.S. Thesis, Massachusetts Institute of Technology, Department of Civil Engineering and Alfred P. Sloan School of Management.

VERIFIED STATEMENT

OF

JERRY W. HEAVIN and DAVID W. BROOKINGS

VERIFIED STATEMENT
OF
JERRY W. HEAVIN and DAVID W. BROOKINGS

1. Qualifications

Jerry W. Heavin

My name is Jerry W. Heavin. I am an independent railroad engineering consultant, with 40 years experience in the railroad industry.

I started my railroad career in 1970 while working my way through college as a surveyor and construction inspector. After graduating from the Missouri University of Science and Technology with a Bachelor of Science degree in Civil Engineering, I spent one year as a bridge design engineer in St. Louis, Missouri for Missouri Pacific Railroad. I then moved to the field for two years as an Assistant Roadmaster supervising tie renewal gangs, rail relay gangs, and division maintenance gangs. I was a Roadmaster and Division Engineer for two years responsible for 150 miles of mainline and terminal track and 100 employees. I was Assistant District Engineer/ District Engineer for 3 years and was responsible for planning, budgeting, maintenance, construction and employee supervision for 3000 miles of Missouri Pacific track.

Prior to operating consolidation of Missouri Pacific with Union Pacific in 1985, I was promoted to Assistant Chief Engineer of Track and was responsible for track maintenance for the entire Missouri Pacific system. I then served as Chief Engineer Facilities for UP from 1986 until I was selected to attend the Sloan School of Management at the Massachusetts Institute of Technology as a Sloan Fellow and completed a Master of Science Degree in Management in 1988.

On return to UP, I worked in strategic planning as the operating department representative on issues ranging from corporate financing to right-sizing the railroad through

branch line sales. For one year I was President of the Red River Valley and Western Railroad, a regional railroad in Minnesota, North and South Dakota. On returning to UP, I was the operating department representative in their attempt to institute quality processes throughout the railroad.

In 1991 I was transferred to Fort Worth, Texas as the Division Superintendant for the track from El Paso, Texas to Salina, Kansas. In 1992 I became Division Superintendant for UP's Boise Service Unit in the Pacific Northwest. Over the next 4 years I supervised UP's operations from Pocatello, Idaho to Seattle, WA, and after the UP/SP merger the track from Portland, Oregon to Modoc, California was added to the Division. In 1996 I was promoted to General Superintendant of Transportation for the Central Region covering the railroad from Chicago, Illinois to Yuma, Arizona.

In 1997 I started an engineering firm and then purchased TRAX Engineering and Associates specializing in track maintenance, operations planning, and industrial facility rail support. In 2001 I accepted the Vice President of Engineering position at Kansas City Southern responsible for all fixed facility design, maintenance and construction. In 2003, I became Senior Vice President Operations for KCS responsible for day to day domestic operations. In 2005 I became Senior Vice President of International Engineering responsible for railroads in the United States, Mexico, and Panama.

In 2008 I retired from KCS to pursue engineering and other projects of interest to me that require large blocks of time.

A summary of my experience is attached as Exhibit A.

David W. Brookings

My name is David W. Brookings. I am an independent railroad engineering consultant, with almost 40 years experience in the railroad industry.

I started my railway engineering career with the Kansas City Southern Railway Company (KCS) in 1972 as a bridge engineer. At that time the KCS was a 1,600 mile regional carrier, and for six years I assisted in inspecting all the bridges on the system. I also assisted in the rating, maintenance, design, and construction field management of the bridge maintenance / construction program. From 1978-1984, I was directly responsible for these same tasks. From 1986-1996, I was Chief Engineer of KCS and directly responsible for all maintenance and capital programs for track, bridges, and signals.

In 1993 the KCS purchased the former Mid-South Railroad and increased its total trackage to approximately 3,000 miles. During due diligence, I was responsible for inspecting the potential acquisition for maintenance / capital costs as they applied to the track, bridges, and signals. After acquisition, I was responsible for all maintenance / capital programs for track, bridges, and signals.

In 1996-1997 the KCS pursued and eventually purchased the Ferrocarille Noreste railroad concession in Mexico between Laredo, Texas and Mexico City with additional lines to Toluca, Tampico, Matamoros, Vera Cruz, Aquascalientes, and Lazaro Cardenas. I was responsible for the maintenance / capital programs as they applied to the track and bridges. This acquisition added approximately 1,500 miles of trackage to the KCS system.

After retiring from KCS in 1999, I founded Brookings & Associates, which performs railway engineering consulting for Class I & II railroads and other businesses on such subjects as track safety, highway grade crossing safety; track construction, and bridge inspection and evaluation.

I also performed consulting work between 2005 and 2009 with HDR Engineering, Inc., and in that connection I was client liaison for the Burlington Northern Santa Fe Railway

Company and oversaw construction projects that included earthwork, bridge construction, and track construction for new siding capacity.

A summary of my experience is attached as Exhibit B.

2. Subjects Covered in This Statement

On behalf of Arkansas Electric Cooperative Corporation (AECC), we have been asked to comment on the suitability of lines of the Missouri & Northern Arkansas Railroad (MNA) to carry Powder River Basin (PRB) coal to the Independence Steam Electric Station (Independence) as a part of a through route with BNSF Railway (BNSF), with a BNSF-MNA interchange at either Fort Scott, Kansas, or Lamar or Aurora, MO.

3. Summary of Conclusions

Based on the inspection described in this Statement and the documents we have reviewed, we conclude that the MNA lines are suitable for use as part of a through route from the PRB to Independence. We further conclude that the best location for an interchange with BNSF would be at Lamar, MO (an interchange at Aurora, MO would also be feasible). Depending on the volume of new coal traffic and the desired level of service for existing rail customers as well as the coal customer at Independence, a capital bridge reconstruction program will be required, but we are aware of no reason for concern that this would make the route unfeasible. The MNA has upgrade programs underway to strengthen both track and bridges.

4. Evaluation Of MNA Lines Based On Inspection and Review of Documents

We made a hirail inspection of MNA on November 17, 18, and 19, 2009 from Diaz Junction, Arkansas to Lamar, Missouri, and to Ft. Scott, Kansas. The purpose of the inspection trip was to ascertain the feasibility of the MNA route to handle loaded unit coal train traffic from an interchange with BNSF at Fort Scott, Kansas, Lamar, Missouri or Aurora, Missouri to the

Independence Power plant near Newark, Arkansas. We were hosted by the Regional Chief Engineer, General Manager, and Roadmaster for MNA. Also in the inspection party was a team of inspectors from Crouch Engineering for Entergy Corporation.

For purposes of this analysis, it is assumed that 135-car unit coal trains, with 286,000-pound-capacity cars, would be used. We understand that the amount of potential coal traffic at this time is uncertain. Our evaluation assumed that the volume of unit coal train traffic on the line would be between 500,000 and 1,950,000 tons of coal annually, which would require between three and ten additional loaded coal trains per month.

The feasibility of an existing rail line to handle a particular type and level of traffic depends primarily on the following items[1]:

- Distance
- Curvature
- Ruling Gradients

In addition, to provide service suitable for customers, there must be an underlying infrastructure capable of meeting the operating requirements:

- Connection, Meeting and Passing Tracks
- Track Structure Sufficient to Carry Loads Without Risk of Derailment and with Acceptable Impact on Operations
- Bridge and Drainage Structures Capable of Supporting Loads and Carrying Surface Runoff; and sound tunnels.

These factors are discussed below.

[1] The Economics of Railway Location, A M. Wellington, Para 159 and 160.

DISTANCE

The MNA line meets the basic distance criteria because the mileage via this route compares favorably to the current route. We understand that AECC witness Michael A. Nelson calculates that the route from the PRB to Independence via a BNSF-MNA interchange at Lamar is substantially shorter than the current UP route. [2] Distance travelled is one of the most important factors in determining the practicality of a competitive alternative rail line because costs, as well as the ability to compete on the basis of time and reliability, are directly related to miles travelled.

CURVATURE

Curvature effects rail operations on a given segment by [3]:

- Causing a loss of power to locomotives – a common rule of thumb is that 1 degree of curvature has the same effect as a .04% grade increase
- Increasing wear on rolling stock
- Increasing wear on rail and other track components
- Potentially limiting the length of trains
- Limiting speeds, and
- Potentially limiting the size and type of engines available for use

An analysis of the curves on the MNA line from Lamar, Missouri, to Newark, Arkansas, shows that train length is not limited, locomotive power loss is manageable, and size and type of engines are not impacted. The MNA line has a 96 mile segment that has a number of curves, however this is not a problem for the overall feasibility of the line. While there is a concentration of sharp curves between Crane, Missouri and Cotter, Arkansas, as the railroad

[2] A BNSF-MNA route using the Aurora interchange would also be shorter than the current route.

[3] The Economics of Railway Location, A.M. Wellington, paragraph 244.

leaves the rolling hills of Southwest Missouri and crosses the Ozark Mountains to reach the White River valley, those curves are not outside the range of operating conditions routinely handled in coal train operations. The current maximum speed of 40 mph can be operated on curves of 5 degrees or less which constitute over 80 percent of the line from Lamar to Newark. Since current train length, locomotive selection and operation, and typical modern operating speeds are permitted by the lines' geometry, coal train operations are feasible.

RULING GRADIENTS

Ruling gradients have two effects on the feasibility of the route. The ruling grade is the grade which by its length or steepness limits the weight of a train that can be pulled by one locomotive.[4] First, as grades become steeper, more locomotive horse power is required to move a given tonnage up the gradient. Second, the number of cars may be limited because of drawbar stress associated with the gradient. As locomotive power is added, the force on the drawbar (the connection between the cars and the locomotive and between cars) increases until it exceeds the strength of the drawbar material, breaking the coupling. There is equilibrium between this limiting factor, the gradient of the line, and the weight of the trailing tonnage. The proposed route is not adversely impacted by grade. The ruling grades for loaded trains at Reed Springs, six miles long, Cricket, 10 miles long, and Bergman, seven miles long, are designed to be approximately one percent. This compares favorably with grades for loaded trains leaving the mines. Trains can be powered with locomotive configurations used by both UP and BNSF and not impact length of train. The route therefore is feasible from a gradient standpoint.

INTERCHANGE CONNECTIONS, MEETING AND PASSING TRACKS

Interchange connections must provide the ability to move the trains from one carrier to another efficiently, minimizing delay to main track operations. The interchange track should

[4] The Design of Railway Location, Clement C. Williams, John Wiley and Sons.

provide the ability to stage trains in the clear of both railroads for crew changes and train meets. We inspected three possible locations for the interchange of PRB coal trains from BNSF to MNA – Aurora, Missouri, Lamar Missouri, and Fort Scott, Kansas. It is feasible at all three to make an efficient connection. In our opinion, Lamar provides the most promising of the options.

For operations that allow efficient handling of the coal trains and to prevent disadvantaging other customers on the line, sufficient meeting and passing opportunities should be provided.

We assume trains to consist of 135, 53-foot cars and four 4000 horsepower locomotives 75 feet long, for an approximate length of 7,500 feet per train.

Current operations on this line support the conclusion that the proposed unit coal train operation would be feasible. All empty coal trains from Independence return northwest toward the PRB mines using this route. The manifest, grain and local trains for MNA's customers use the route in both directions. The unit coal trains would require sidings longer than 7,500 feet for meets and passes, and there are 6 sidings on the line that would be suitable. In addition, prior to leasing the line to MNA, UP retired some sidings that are long enough for meets and passes of unit coal trains; these could be reestablished without grading or sub-grade work.

Under the current configuration, the siding spacing for long trains averages 39 miles and varies from 24 to 50 miles. Using simple capacity assumptions[5], this spacing would permit 5 long trains per day for these sidings - adequate for the volumes assumed in this analysis. In the one portion of the railroad, between Stotts City and Bergman, where the siding spacing may not be adequate, there are feasible options to extend one of the existing sidings by eight hundred feet, or to restore one of the sidings retired by UP.

[5] Planning for Traffic Growth on Rail Lines, NAR Hanks and JFR Gussow 82-HH-6, pages 47 -52; Management of Train Operations and Train Handling, 1972, The Air Brake Association, page 191 – 193.

TRACK STRUCTURE

The track structure for a line handling additional coal traffic must be capable of carrying the loads safely, without unreasonable interruptions to service due to infrastructure failures and/or maintenance needs. The components of the track structure reviewed for the Lamar to Independence section are:

- Rail
- Ties
- Track Geometry
- Ballast and Sub-grade

There are 3 primary rail sections used in the main track on the line: 112 pound and 115 pound continuous welded rail (CWR) for tangent track and curves less than 2 degrees, and 133 pound CWR for some curves over 2 degrees. The 112 pound and 115 pound rail was typically rolled between 1940 and 1960 and is generally in its second position. When the rail was removed from its first position, it was inspected and classified, taking only the rail with sufficient remaining life, then it was welded into CWR strings. The majority of the 133 pound rail was purchased new and laid on the line by UP prior to the lease to MNA. The overall rail condition is good and it presents no hindrance to the feasibility of using the line for unit coal trains. Increased traffic volumes would need to be reflected in the rail maintenance program for the line.

Crossties are all wood and generally spaced at 19.5" There is a mixture of 8 foot and 8 foot 6 inch mixed hardwoods in place. During our inspection of the line, we found that, on average, between Independence and Lamar, 26% of the ties were defective, or approximately 850 ties per mile. This is a high but manageable level for the traffic currently on the line. At the time of the inspection, there were still more than twenty 10 mph and nine 25 mph speed

restrictions in effect between Independence and Lamar. [redacted] In general, temporary speed restrictions are a preventative maintenance issue and do not affect the feasibility of the line for coal train use.

Heavy axle loads from unit coal train movement will have measureable effect on cross tie condition in areas where 30% or more of the ties are defective. Again, this is not an issue of feasibility of the line and is a function of the maintenance level on the line in the past several years.

TRACK GEOMETRY

Track geometry must fall within limits prescribed by the FRA to permit safe operations. In general, track geometry was good and does not present problems to coal train movements.

BALLAST AND SUB-GRADE.

The line is fortunate to traverse an area that has stable materials available for construction of sub-grade. There are few instances of problem areas, and in no instances were chronic sub-grade failures endangering the reliability or safety of the line. The ballast condition is good with granite ballast supplied from UP/MP sources in place in most of the territory. MNA is using some limestone spot ballast which will no longer be suitable with the introduction of heavier wheel loads. No threats to the feasibility are rendered by the ballast or sub-grade.

BRIDGES AND TUNNELS

There are 174 bridges on the MNA between Independence Plant and Lamar, Missouri. The bridge types include timber trestles, concrete trestles, steel girders, concrete girders, and steel through truss spans. The original line was constructed in 1899, but most of the bridges have been reconstructed. Only a few of the original bridges still remain in service today. Up to

the time of the MNA lease/purchase in 1992, MP and later UP replaced many of the timber trestles with steel or concrete bridge structures.

The MNA today is 286,000 pound compliant and does handle rail cars of this weight over its system. MNA handles coal, grain, steel coils, and fertilizer in 286,000 pound rail cars. The grain is handled in unit trains from Pleasant Hill, Missouri to Bergman, Arkansas. Blocks of these commodities are handled elsewhere on their system.

During the inspection trip, we stopped at 45 bridges to view and photograph the structures. A point was made to observe representative bridges from the different types of structures, i.e., steel through truss spans, steel deck plate girders, steel through plate girders, concrete trestles, steel beams on concrete bents, open deck timber trestles, and ballast deck timber trestles. The existing condition and state of maintenance was observed. The inspection party also stopped at locations where a railway bridge contractor was working or had recently completed bridge maintenance work.

In addition to the hirail inspection trip, bridge information provided through discovery was reviewed. This information included bridge maintenance/reconstruction recommendations by UPRR and the latest bridge inspection reports of the MNA system by Osmose Railroad Division.

Cursory inspections of 3 tunnels were made during the hirail trip. At each tunnel, particular attention was paid to the ceiling and walls. There are only minor rock falls presently, and MNA officials did not indicate any significant maintenance issues with any of the tunnels. The fourth tunnel was not inspected due to rail traffic.

VERIFICATION

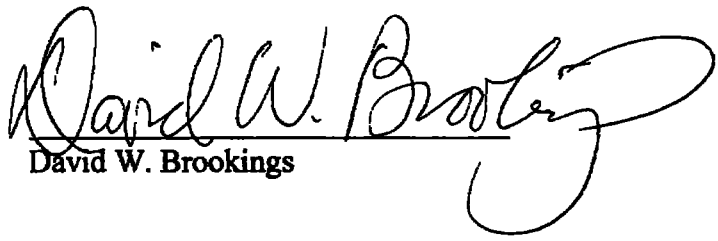
I, Jerry W. Heavin, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement.

Jerry W. Heavin

Executed on 4-6, 2010

VERIFICATION

I, David W. Brookings, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement.



David W. Brookings

Executed on Mar. 24, 2010

EXHIBIT A

Jerry W. Heavin's
Summary of Experience

Mr. Jerry W. Heavin
10225 Magnolia Lane
Parkville, Missouri 64152
Cell Phone – 816-820-2480
Email jheavin@aol.com

EMPLOYMENT HISTORY

Senior Vice President International Engineering Kansas City Southern Railway 2005- 2008

- Responsible for Design, Construction and Maintenance of Fixed Operating Facilities in United States and Mexico

Senior Vice President – Operations Kansas City Southern Railway 2003 – 2005

- Responsible for Day to Day Operations for Domestic Rail Operations in the United States

Vice President Engineering Kansas City Southern Railway 2001 – 2003

- Responsible for Design, Construction and Maintenance of Domestic Fixed Operating Facilities in the United States.

President Trax Engineering, Inc 1997 - 2001

- Owner and President of Niche Engineering Firm Engaged in Design, Construction and Maintenance Consulting for Railroads and Users of Rail Facilities
- Expert Witness Work for Class 1 Railroads and Their Law Departments and Legal Counsel

General Superintendent Transportation Union Pacific Railroad 1996 – 1997

- Responsible Transportation Operations for The Union Pacific Central Region, Chicago, IL to Yuma, AZ.

Superintendent Transportation Union Pacific Railroad 1991 – 1996

- Responsible Transportation Operations for The Union Pacific Northwest Division Headquartered in Boise, ID and Portland, OR.

General Director Quality Union Pacific Railroad 1989 – 1991

- Staff Position Responsible for Implementing Quality Principles in Operating Department.

President Red River Valley and Western Railroad 1988 - 1989

- President of Regional Railroad Headquartered in Wahpeton, ND. Responsible for Day to Day Operating Functions Including Marketing, Operations and Accounting.

Chief Engineer Facilities Union Pacific Railroad 1986 – 1988

- Responsible for support operations for all maintenance and design functions at Union Pacific Railroad.

EDUCATION

Van Buren High School, Van Buren Missouri
Missouri University of Science and Technology Rolla, MO (UMR, MSM) B.S.C.E
Massachusetts Institute of Technology Boston, MA(MIT) MS Management as Alfred Sloan Fellow

PROFESSIONAL MEMBERSHIPS

American Railway Engineering and Maintenance Society (Past Member)
North American Chief Engineers

EXHIBIT B

David W. Brookings's
Summary of Experience

David W. Brookings
6517 Ridge Road
Parkville, Missouri 64152
(816) 741-5192 Office
(816) 741-2412 Fax
(816) 547-5470 Cell
dbrookings@kc.rr.com

BROOKINGS & ASSOCIATES, LLC
1999 - Present

Perform railway engineering consulting for Class I & II Railway Carriers and Private Business: Expert Witness Reports and testimony for FELA personal injury; FRA track safety; Industry track safety; Highway grade crossing safety; Track construction; Bridge inspection and evaluation.

HDR Engineering, Inc.
2005 – 2009

Part-time employee performing railway engineering consulting for a large nationally recognized engineering firm as a client liaison with BNSF Railway Company and Kansas City Southern Railway Company. Interface with HDR and Railway personnel on various projects including capacity expansion, bridge design and construction, track construction, and facilities construction

KANSAS CITY SOUTHERN RAILWAY COMPANY
1972 – 1999

1997 - 1999 **Vice-President & Executive Representative**

Working directly for the President and Chief Executive Officer of the KCS Railway, was responsible for making inspections and recommendations concerning the physical plants of proposed acquisitions or concessions of railway properties on behalf of the KCS Railway. These properties include the Texas Mexican Railway and railway concessions in Mexico and Panama.

1993 - 1996 **Vice-President & Chief Engineer**

Working directly for the Vice-President of Operations and coordinating with other department heads in finance, legal, transportation, mechanical, purchasing, and accounting, was responsible for all maintenance and new construction on tracks, bridges, and signal systems.

1986 - 1992 **Chief Engineer**

Directly responsible for the operation of track, bridge, and signal departments, approximately 600 personnel, including safety, budgeting, maintenance, new construction, emergency response, and daily operations.

1985 - 1986 **Engineer of Track**

Directly supervise managers in charge of the maintenance and design of track structures, bridges, and signals for the KCS system

1978 - 1984 **Senior Bridge Engineer**

Directly supervise the inspection, rating, maintenance, design and construction field management of bridges on KCS system. Responsible for annual bridge inspection program, bridge maintenance program, proposed capital bridge program, and subsequent field construction management.

1972 - 1977 **Bridge Engineer**

Assist in inspection, rating, maintenance, design and construction field management of bridges on 1600 mile Class I railway system.

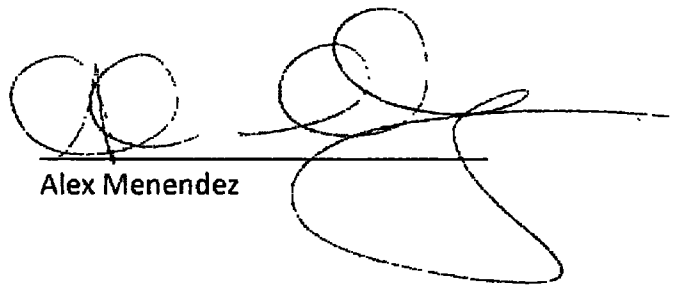
Education: BS-Civil Engineering - 1972 / Louisiana Tech University

Registration: PE, Missouri 017990, Louisiana PE 16029

Professional Affiliations: American Railway Engineering and Maintenance-of-Way Association
American Society of Civil Engineers
Former Director (5 years) – American Railway Engineering Assoc.

CERTIFICATE OF SERVICE

I hereby certify that I have caused the foregoing documents to be served by first class mail, postage prepaid, on this 7th day of April 2010, on all persons on the Board's service list in Docket 42104.



Alex Menendez